

FURTHER NOTES ON THE PANICUMS OF ESSEX COUNTY,
MASSACHUSETTS.

F. TRACY HUBBARD.

SPECIES NEWLY NOTED FROM THE COUNTY.

DURING about a week's collecting around Manchester this fall I discovered several species of *Panicum* not in my former list. [RHODORA 14:36 (1912)]. At least three of these seem to be unreported from Essex County. Additional collections were made of certain of the species mentioned in the former list and one species there noted must be excluded as further collections of similar material have led to a reversal of opinion.

PANICUM LINDHEIMERI Nash. Hitchcock & Chase, Contr. Nat. Herb. 15:203 cite this species from Maine; New Hampshire; Vermont; Massachusetts, Framingham, *Smith* no. 734; and Connecticut. There is no specimen of this species from Massachusetts in either the Gray Herbarium or the Herbarium of the New England Botanical Club, but in the latter is a specimen from Rhode Island, Warwick *M. L. Fernald*, June 25, 1910, so that the species has been sparingly found in all the New England states, most commonly in Maine. In the locality where I collected it, it was fairly abundant. My specimen is No. 482, sandy hillside, among rocks, back of Dana's Beach, Manchester, Oct. 1, 1912. This number was sent to Mrs. Chase of the Bureau of Plant Industry and was determined by her. The material is more pubescent than *P. Lindheimeri* ordinarily is and Mrs. Chase states that it is the form which was named *P. Funstoni* by Scribner and Merrill.

PANICUM MERIDIONALE Ashe. Hitchcock & Chase, l. c. 210 do not cite this species from Massachusetts, but in the Herbarium of the New England Botanical Club there are specimens from Sandwich, *F. S. Collins*, No. 1153; Brewster, *F. S. Collins*, Nos. 1288, 1205; Wellfleet, *F. S. Collins*, No. 1238. I have also seen specimens from Wellesley (Herb. Wellesley College); Dedham, Purgatory Swamp, *F. F. Forbes*, June 27, 1903 (Herb. Forbes) and Wilmington, *G. G. Kennedy* (Herb. Kennedy). My specimen is No. 475a, rich open woods, Beverly Farms, Sept. 29, 1912. This material was a single

plant collected with No. 475 and sent to Mrs. Chase for determination. No. 475 is *P. huachucae* Ashe var. *fasciculatum* (Torr.) Hubbard (Var. *sylvicola* Hitchc. & Chase).

PANICUM HETEROPHYLLUM Bosc var. THINIUM (Hitchc. & Chase) Hubbard (*P. columbianum* Scribn. var. *thinium* Hitchc. & Chase). Hitchcock and Chase, l. c. : 248 cite this species from Massachusetts, Nantucket, *Bicknell*, in 1889 and 1904. There is no specimen of this species in the Gray Herbarium, but in the Herbarium of the New England Botanical Club is a specimen from Winchester, *C. E. Perkins*, Sept. 1, 1882. My specimen is No. 483, sandy hillside back of Dana's Beach, Manchester, Oct. 1, 1912. This number was verified by Mrs. Chase.

While this variety has not been reported from Essex County I know that it has been previously collected from the same locality as my No. 483 by Miss Cora H. Clarke as I have seen specimens sent by her to Mrs. Chase. The variety seems to be rare and only sparingly collected from Massachusetts to Virginia always on or near the coast. At Dana's Beach it seemed to be fairly abundant.

ADDITIONAL NOTES ON PREVIOUSLY REPORTED SPECIES.

PANICUM TENNESSEENSE Ashe. This very variable species seems to be common in Essex County and several additional collections of it were made.

PANICUM LANGUIDUM Hitchc. & Chase. This fall I revisited the locality where I collected my No. 205 in 1911 and collected other material similar to it and also made several collections in Manchester which seemed to be the same species. These were sent to Mrs. Chase and after a careful study of them she decided that they were a form of *P. tennesseense* Ashe and redetermined No. 205 as the same, so that *P. languidum* must be removed from the list of Essex County Panicums.

Mrs. Chase writes me, in part, under the date of November 11, 1912, "I think it [No. 205] is an unusual specimen of *P. tennesseense*. The panicle of 205 is much longer than characteristic for *P. tennesseense*, and the blades less firm. These fall "vernal" culms are very deceiving but going over the whole group again, I should call this *P. tennesseense*."

PANICUM TSUGETORUM Nash. This species is abundant in Essex

County and numerous forms of it were collected from typical material to one collection which very closely approached *P. heterophyllum* Bosc (*P. columbianum* Scribn.).

PANICUM UMBROSUM Le Conte (*P. Ashei* Pearson). This species was collected once more and was fairly plentiful in the locality. No. 480, among boulders back of rocky coast, near Dana's Beach, Manchester, Oct. 1, 1912.

Additions to previous list of species collected in Essex County; noting specimens in the Gray Herbarium or the Herbarium of the New England Botanical Club or where there are published records of the species from Essex County.

P. Lindheimeri Nash.

P. meridionale Ashe.

P. heterophyllum Bosc var. *thinium* (Hitchc. & Chase) Hubbard.

P. latifolium L. N. E. Bot. Club; Robinson, Fl. Essex Co. 130 (1880)

CAMBRIDGE, MASSACHUSETTS.

THE VARIATIONS OF LUZULA CAMPESTRIS IN NORTH AMERICA.

M. L. FERNALD and K. M. WIEGAND.

THE cosmopolitan species, *Luzula campestris* (L.) DC., has been treated by Buchenau¹ as consisting of twenty geographical varieties and by him has been kept apart specifically from the American *L. comosa* Meyer. In the study of certain collections from northeastern America, however, the writers, who have found it necessary to organize the material of these two species in the Gray Herbarium and during the prosecution of this study have been kindly loaned the local collection of the Academy of Natural Sciences of Philadelphia, have found it impossible to maintain any real specific lines between these two plants. In this failure to find specific lines between *L. campestris* and *L. comosa* they have arrived at the conclusion which has already been reached by several other students, for example Otto Kuntze²

¹ Buchenau in Engler, Pflanzenf. iv. Fam. 36, 83-95 (1906).

² Kuntze, Revis. Gen. Pl. ii. 724 (1891).